



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,836	10/22/2003	Yasuhiko Yamagishi	040302-0351	4244

22428 7590 11/28/2005

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

SWENSON, BRIAN L

ART UNIT	PAPER NUMBER
----------	--------------

3618

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,836

Applicant(s)

YAMAGISHI ET AL.

Examiner

Brian Swenson

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/16/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 10-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/22/03, 7/12/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species III (Figure 5, Claims 1-9) in the reply filed on 16 September 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,203,044 issued to Linscott, Jr. in view of U.S. Patent No. 6,329,731 issued to Arbanas et al.

Linscott, Jr. teaches in Figures 1-3 and respective portions of the specification of: a cooling system (Figure 1), comprising: an electric motor (10); a drive unit (12) which adjusts a driving force of an output shaft of the electric motor and transmits the driving force to a drive shaft; and an in-shaft refrigerant passage (Figure 2) provided in a shaft of the reduction gear and the output shaft of the electric motor (Figure 1), wherein a refrigerant which has passed through the in-shaft refrigerant passage is collected outside a motor case housing the electric motor, and is circulated.

Art Unit: 3618

Linscott, Jr. does not state if the drive unit serves as a reduction unit or if the motor is positioned on a vehicle.

Reduction gear units are well-known in the vehicle art for connecting to electric motors to increase the amount of torque applied to drive wheels, due to electric motors high RPM and low torque. Arbanas et al. teaches in Figures 1-4 and respective portions of the specification of: a combination of electric motor (1) with a planetary gearset (3) for use in a vehicle (abstract). It would have been obvious to one having ordinary skill in the art at the time of invention to use the motor with the planetary gear set, taught by Linscott, Jr. One would be motivated to use a planetary gear set to provide the advantage of increasing torque, while still providing the constant speed drive (an objective taught by Linscott, Jr. Col. 3, line 80).

Allowable Subject Matter

3. Claims 2-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The primary reason for the indication of allowable subject matter in this case is the inclusion of an outside refrigerant passage which allows the coolant to be circulated from the in-shaft refrigerant passage to a rotation detector chamber which houses a rotation detector, which is then circulated back into the system, in combination with the other elements recited not found in the prior art of record.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,750,572 issued to Tornquist et al. teaches of a generator system with lubricating and cooling.

U.S. Patent No. 6,897,581 issued to Doherty et al. teach of a high speed generator with an in-shaft cooling system.

U.S. Patent No. 6,626,649 issued to Cowans teaches of a pump system for moving coolant.

U.S. Patent No. 6,437,468 issued to Stahl et al. teaches of a permanent magnet rotor colling system and method.

U.S. Patent No. 6,116,877 issued to Takeuchi et al. teaches of a gear pump.

U.S. Patent No. 6,087,744 issued to Glauning and U.S. Patent No. 4,728,840 issued to Newhouse both teach of a electric machines with cooling.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Swenson whose telephone number is (571) 272-6699. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Swenson
Examiner
Art Unit 3618

BS 11/19-05
bls

